

U.S. Department of Transportation: Medical Conditions and Driving Abilities

This literature review summarizes forty years of research related to older driver safety. It focuses on how medical conditions affect driving skills and abilities. The report is a valuable compendium that can help driver licensing authorities, physicians, and policy-makers make appropriate decisions related to older driver safety. This is the first report to thoroughly address these issues.

Lead Agency:

U.S. Department of Transportation
National Highway Traffic Safety Administration (NHTSA)

Agency Mission:

Save lives, prevent injuries and reduce economic costs due to road traffic crashes through education, research, safety standards and enforcement activity.

Principal Investigators:

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Partner Agencies:

Association for the Advancement of Automotive Medicine

General Description:

This report reviews the contribution of medical conditions and functional limitations (e.g., sensory, motor, or cognitive functioning) to motor vehicle crashes. It provides a comprehensive and up-to-date review of the international research literature on the effects of medical and functional conditions on driving performance. The report is divided into 15 sections (Introduction, Vision, Hearing, Cardiovascular Diseases, Cerebrovascular Diseases, Peripheral Vascular Diseases, Diseases of the Nervous System, Respiratory Diseases, Metabolic Diseases, Renal Diseases, Musculoskeletal Disabilities, Psychiatric Diseases, Drugs, The Aging Driver, and the Effects of Anesthesia and Surgery). Each section contains a brief overview of the condition/illness; prevalence information; a review of the medical, gerontological, and epidemiological literature relevant to the condition/illness, followed by current fitness to drive guidelines for the condition/illness from Canada and Australia. The Appendix presents preliminary guidelines for physicians to assess medical fitness-to-drive. The report is a scholarly but practical compendium that can serve as a valuable resource for physicians, rehabilitation practitioners, other allied health care professionals and educators, Department of Motor Vehicle personnel, road and traffic safety personnel, transportation planners, highway safety researchers, and public policymakers. Its value is particularly relevant as the driving population increases in size and age.

Excellence: What makes this project exceptional?

Because there will be an increase in the numbers of older drivers in the coming decades, it is important to understand the types of safety challenges facing this population and those with whom they share the road. A special concern is age-related illness and its potential to influence driving safety.

Significance: How is this research relevant to older persons, populations and/or an aging society?

This report represents the first time that a compendium of medical conditions and driving has been compiled. The report presents findings that delineate the correlations between age-related illnesses and safe driving ability that can be useful for physicians dealing with older patients.

Effectiveness: What is the impact and/or application of this research to older persons?

This project promotes safety and older citizen mobility by providing crucial support for functional ability screening. It has been used as a starting point for an evidence-based review that was sponsored by the American Occupational Therapy Association, and for research in Canada and the U.S.

Innovativeness: Why is this research exciting or newsworthy?

The compendium fills significant knowledge gaps in our understanding of the relationships between medical conditions, functional abilities, and crash risks.